

Status of the U.S. Small-Wind Market

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Presentation Outline

WIND: POWERING A CLEANER, STRONGER AMERICA

WWW.AWEA.ORG

Summary of Major Developments

- US market growth
- Growth by market segment
- On-grid vs. Off-grid
- Projections

Growth Factors

- Drivers
- Barriers
- Policies needed

Global Market





Headlines

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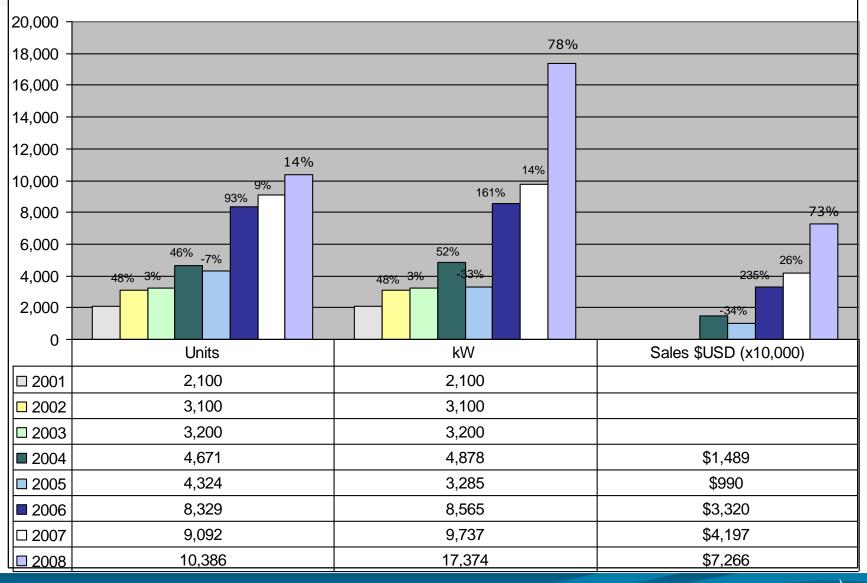
- •US Market Grew 78% in 2008
- •30-Fold Growth Projected Within 5 Years (US)
- Congress Passes 30% Tax Credit in late 2008

2008 US Sales2008 Global Sales17.3 MW33.6 MW78% growth over 200763% growth over 200710,500 units18,900 units\$77 million in sales\$144 million in sales

Full report available at www.awea.org/smallwind



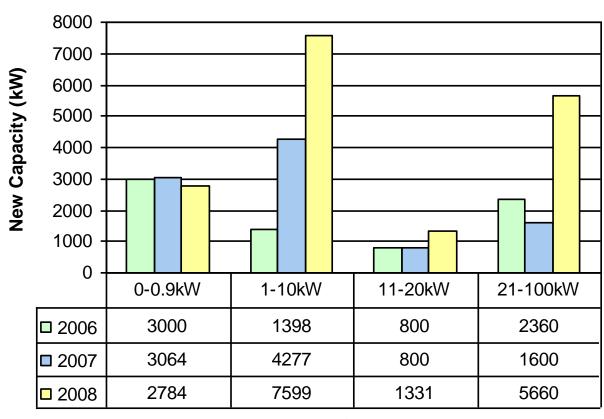
Growth of U.S. Small Wind Market





Growth by Market Segment

U.S. Market Segment Growth



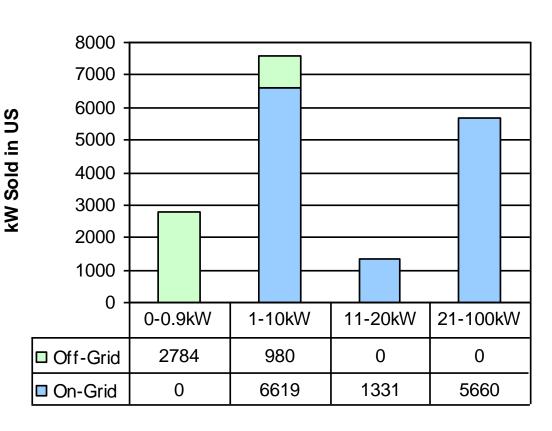
- Growth dominated by residential and upper-commercial markets
- Growth in all segments but off-grid

Turbine Size Range



On-Grid vs. Off-Grid 2008

US Small Wind Turbine Market, 2008



Capacity Added in 2008:

On-Grid: 13.6 MW (78% of total)

Off-Grid: 3.8 MW

Shift toward grid-tied units over

last ~5 years



Drivers

Supply

Consumer Incentives & Policy Investment Increased Production **Increased Production** Turbine **Economies** Availability of Scale **Lower Prices Meet Demand** Growth

Demand

Awareness of Technology

Environmental Concerns

Rising Electricity Prices

Education

Security

Financial Hedge

"Intangibles": Independence Publicity Do-It-Yourself



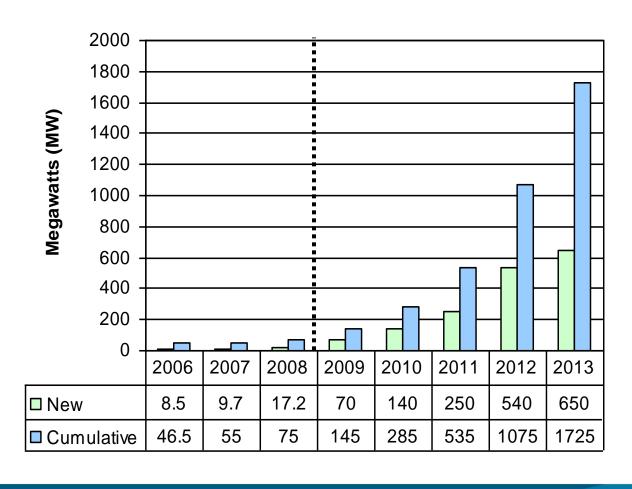
Future Factors

- Federal Policies: Long-term, predictable
 - New eight-year, 30% Federal Investment Tax Credit
 - Fed. Renewable Electricity Standard
 - Climate change legislation
- Further P.E. investment
- Certification
 - Equipment
 - Installers
- Resource assessment tech.
- Demand



Projections

US Market Growth Projections



- 30-<u>fold</u> increase projected within 5 years
- Est. cumulative capacity would be 1,700MW
- Projections in terms of "Gigawatts" for the first time



Barriers Remain

Some Momentum with the Following Barriers: (Blue = Policy-Related)

- Lack of incentives
- Net metering
- Interconnection
- Product Performance
- Low-visibility
- Public perception

Little Momentum With:

Zoning & Permitting

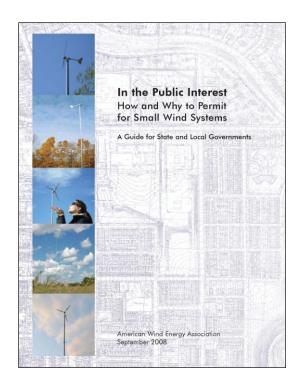
Momentum Attributed to:

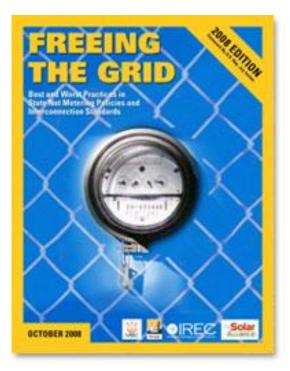
- Die-hard advocates
- 10,000+ installations/yr. & in every state
- Growing army of industry members (66+ mfrs in US)
- Non-industry grassroots advocates
- Federal & state leadership



Lobbying Resources for State & Local Issues







State & Local Policy Recommendations (AWEA)

Permitting (AWEA)

Net Metering & Interconnection (NNEC, IREC)

All available through www.awea.org/smallwind

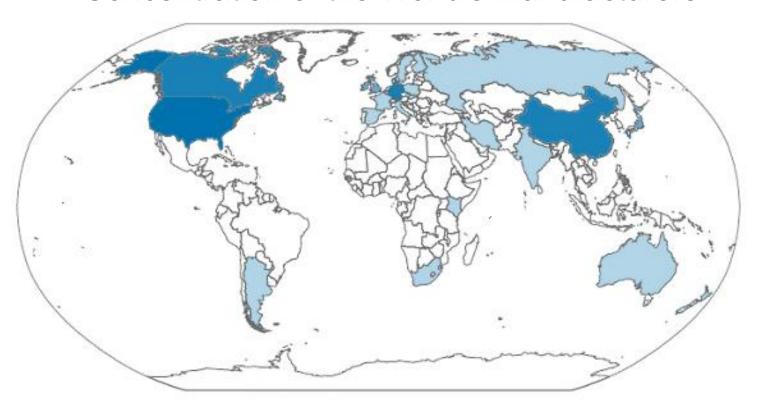




Global Market

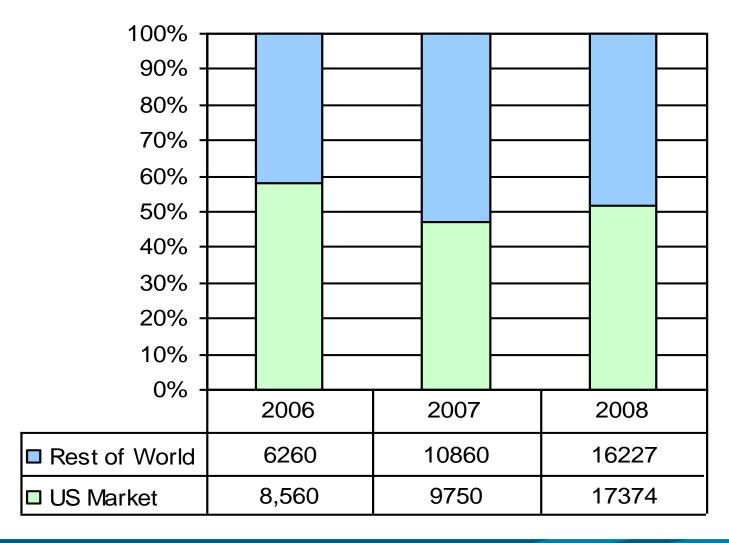
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Concentration of the World's Manufacturers



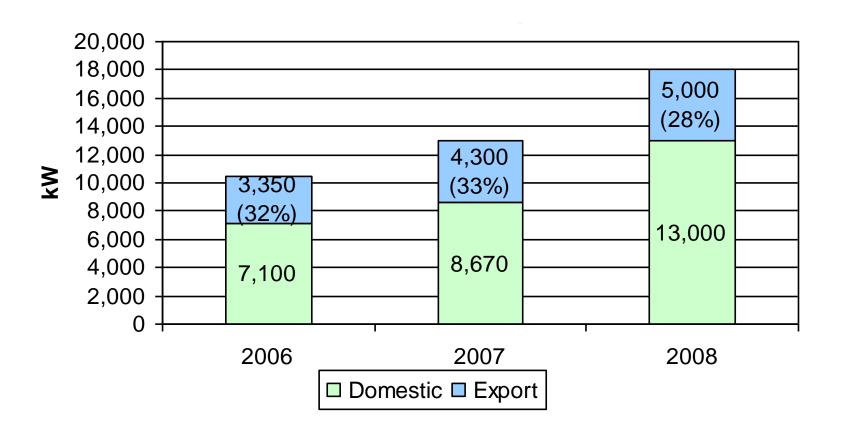


US Global Market Share (kW)





US Manufacturers' Exports





More Statistics & Analysis

Exports as a % of US Manufacturers' sales

- 2008: 28%

- 2007: 33%

Units sold in US that were produced by US mfrs:

- 2007: 98%

- 2008: 94%

- These trends may signify a growing attractiveness of the US market.
- Growth may spur more regulation.
- US state and government incentives have begun to catch up with those of other major turbine-producing countries. Particularly with an uncapped ITC, the US appears prepared to retain and improve its market share in the global industry.





Contact Information

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Full Report Available At www.awea.org/smallwind

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